CHAPTER 22A

SEWAGE INFRASTRUCTURE IMPROVEMENT ACT GRANTS

SUBCHAPTER 4. FINAL MAPPING AND MONITORING REQUIREMENTS

7:22A-4.1 Applicability

- (a) All affected municipalities shall prepare and adopt a final map of their stormwater sewer and sanitary sewer system and perform monitoring of their stormwater in accordance with the requirements of this subchapter.
- (b) Affected municipalities may apply for a grant to satisfy the final mapping requirements of this subchapter. However, if for any reason an affected municipality does not receive a grant, the affected municipality is not relieved of the requirement to comply with this subchapter.

7:22A-4.2 Reporting requirements

- (a) On or before June 17, 1992 or within one year from the date of execution of the final mapping grant agreement, whichever comes later, all affected municipalities shall submit a copy of the final map, adopted by the governing body of the affected municipality and prepared in accordance with N.J.A.C. 7:22A-4.3, to the Department. The affected municipality shall submit any other submittals required by N.J.A.C. 7:22A-4.3 at the time of submittal of the final map.
- (b) Within 12 months of the submittal of the final map in (a) above and yearly thereafter, all affected municipalities shall submit updated portions of the final map in accordance with N.J.A.C. 7:22A-4.3(g), to the Department.
- (c) On or before October 17, 1991, all affected municipalities which did not receive a grant for preliminary mapping shall submit the information required under N.J.A.C. 7:22A-3.10 and 3.11 to the Department.
- (d) On or before October 17, 1991, all affected municipalities shall submit an investigative priority list in accordance with N.J.A.C. 7:22A-4.4 to the Department.
- (e) All affected municipalities shall submit a copy of the sampling data collected in accordance with N.J.A.C. 7:22A-4.5 to the Department within 20 working days from the date that the municipality receives the data from the laboratory. In no case shall this time period exceed 40 working days from the date of collection of the sample.
- (f) All affected municipalities shall submit a priority list for periodic monitoring in accordance with N.J.A.C. 7:22A-4.8(b) to the Department with the final map.
- (g) All affected municipalities shall submit a copy of the periodic monitoring data

collected in accordance with N.J.A.C. 7:22A-4.8 to the Department within 20 working days from the date that the municipality receives the data from the laboratory. In no case shall this time period exceed 40 working days from the date of collection of the sample. The submission shall note where sample analysis indicates that there are excessive levels of bacteria, as specified in N.J.A.C. 7:22A-4.7.

- (h) All affected municipalities shall submit a quality assurance program plan and have the plan approved by the Department, in accordance with N.J.A.C. 7:22A-4.6(a), prior to taking any grab samples as required by N.J.A.C. 7:22A-4.5 and 4.8. The affected municipalities shall include the project specific information and submit the completed quality assurance program plan to the Department.
- (i) All affected municipalities shall submit to the Department a notice of any interconnection and/or cross-connection that is found within 24 hours of the finding thereof. The notice shall include the location of the interconnection or cross-connection and the owner and operator of the system where the interconnection or cross-connection is found.

7:22A-4.3 Final mapping

- (a) The affected municipality shall prepare a final map which:
- 1. Delineates all public and private stormwater sewer lines that are located within the geographic boundaries of the affected municipality; and
- 2. Includes any previously mapped public and private sanitary sewage lines located within the geographical boundaries of the affected municipality.
- (b) The scale of the final map shall be no larger than 1:1200 (one inch = 100 feet) and no smaller than 1:4800 (one inch = 400 feet).
- (c) If the process used to develop the final map is a digital process the affected municipality shall submit to the Department a copy in digital form.
- (d) All mapping shall be performed utilizing the New Jersey State plan coordinate system (feet). Either the North American Datum of 1927 or 1983 may be employed for the mapping process; however, after December of 1992 the North American Datum of 1983 shall be employed. The affected municipality shall indicate which datum was employed.
- (e) The base maps used in developing the final map shall meet National Map Accuracy Standards. Tidelands maps, which have a scale of one inch = 200 feet, provide partial coverage of the coast. Affected municipalities may contact the Department to inquire about the availability of these maps for their municipality. If the tidelands maps provide full coverage of the affected municipality, these maps may be used as base maps for the final mapping.

- (f) All base maps shall be certified by a licensed land surveyor or a certified photogrammatrist.
- (g) Any new Global Positioning Satellite (GPS) observation shall be submitted to the Department. The coordinates of this observation and a detailed physical description of the location of this observation shall be included in this submittal.
- (h) All features delineated as part of the final mapping shall be accurate to within 10 feet. A licensed professional (such as a professional planner or a professional engineer) shall certify the accuracy of the map.
- (i) The affected municipality shall submit an identification of the field work (remote sensing, surveying, etc.) performed to locate the features delineated on the final map.
- (j) The affected municipality shall include on the final map the following features associated with their stormwater sewer system:
- 1. The location of stormwater sewer pipes, including the lengths, sizes and types of pipes;
- 2. The location of stormwater outfalls, including the surface water classification, as set forth in the Surface Water Quality Standards, N.J.A.C. 7:9B, of the receiving water body at each outfall;
- 3. The location of any interconnection or cross-connection, including the access points where grab samples were taken in accordance with N.J.A.C. 7:22A-4.5(c) and (d);
- 4. Arrows indicating direction of flow within the pipe;
- 5. All stormwater sewer appurtenances, such as manholes, siphons, pumping stations, catch basins, stormwater management basins, and inlet structures. These shall be designated on the final map by suitable symbols and referenced by a legend near the title;
- 6. Elevations of street surfaces, sewer inverts, manhole rims and inlet structures, if known;
- 7. The delineation of all lots presently served by individual subsurface sewage disposal systems or cesspools;
- 8. The location of all industrial establishments. The affected municipality shall designate on the final map by suitable symbols and referenced by a legend near the title, those industrial establishments that have floor drains or other conveyance facilities that discharge into the stormwater sewer system, and those industrial establishments where material handling equipment or activities, raw materials, intermediate products, final products, waste materials, by-products or industrial machinery are exposed to stormwater;

- 9. The location of all hazardous waste facilities, solid waste facilities and recycling centers; and
- 10. Street names.
- (k) The affected municipality shall include on the final map the following features, associated with the sanitary sewer system:
- 1. The location of previously mapped sanitary sewage pipes, including the lengths, grades, sizes and types of pipes;
- 2. Arrows indicating direction of flow within the pipe;
- 3. All sanitary sewer manholes whether previously mapped or not;
- 4. All previously mapped sanitary sewer appurtenances, such as siphons and pumping stations. These shall be designated on the final map by suitable symbols and referenced by a legend near the title;
- 5. Elevations of street surfaces, sewer inverts, manhole rims and inlet structures, if known; and
- 6. Street names.
- (l) The affected municipality shall establish a numerical reference system for the structures located on the final map.
- (m) The affected municipality shall submit the NJPDES permit number of any permitted cross-connection identified on the final map. Where an unpermitted cross-connection discharges industrial pollutants, the affected municipality shall submit the name and address of the person responsible for the cross-connection. Where an unpermitted cross-connection discharges domestic pollutants, the affected municipality shall eliminate or cause to be eliminated the cross-connection.
- (n) The affected municipality shall submit the list of the potential nonpoint sources of pollution as required by N.J.A.C. 7:22A-4.5(e)2.
- (o) The affected municipality may choose to produce two separate maps, one of their separate stormwater sewer system and one of their sanitary sewage system. These maps shall be produced at the same scale and shall follow the requirements of this section. These maps shall contain, at a minimum, four registration points to allow alignment of the maps when overlaid.
- (p) The affected municipality shall identify all features on the final map which are neither owned nor operated by the municipality. For those features, the affected municipality shall include a separate list of the owners and/or operators.

(q) After the submission of the final map, all affected municipalities shall maintain and annually update any portion of the final map to incorporate changes or additions to the stormwater and sanitary sewer systems. The updated maps shall also incorporate any interconnections or cross-connections discovered or eliminated after adoption of the final map.

7:22A-4.4 Investigative priority listing

- (a) All affected municipalities shall submit a priority list for the Department's approval which identifies the order in which the stormwater sewer systems will be investigated. The priority list shall include for each stormwater outfall the surface water classification, established in the Surface Water Quality Standards, N.J.A.C. 7:9B, for the waterbody into which the outfall discharges. The priority list shall include the stormwater outfall number established in N.J.A.C. 7:22A-3.10(a) and shall be based on the following priorities, unless the affected municipality demonstrates to the satisfaction of the Department that other priorities should be used due to site-specific conditions:
- 1. Dry weather discharges from stormwater outfalls discharging to ocean front waters in or adjacent to bathing areas;
- 2. Dry weather discharges from stormwater outfalls discharging to estuarine waters in or adjacent to bathing areas;
- 3. Wet weather discharges from stormwater outfalls discharging to ocean front waters in or adjacent to bathing areas;
- 4. Wet weather discharges from stormwater outfalls discharging to estuarine waters in or adjacent to bathing areas;
- 5. Dry weather discharges from stormwater outfalls discharging to estuarine waters in or adjacent to approved, seasonal or special restricted shellfish growing waters (in that order) as established in N.J.A.C. 7:12;
- 6. Dry weather discharges from stormwater outfalls discharging to ocean waters in or adjacent to approved, seasonal or special restricted shellfish growing waters (in that order) as established in N.J.A.C. 7:12;
- 7. Wet weather discharges from stormwater outfalls discharging to estuarine waters or ocean waters in or adjacent to approved, seasonal or special restricted shellfish growing waters (in that order) as established in N.J.A.C. 7:12;
- 8. Any other dry weather discharges from stormwater outfalls; and
- 9. All other wet weather discharges from stormwater outfalls.

(b) After the submission of the final map in accordance with N.J.A.C. 7:22A-4.3, the affected municipality may, based on information discovered through final mapping, submit an updated priority list.

7:22A-4.5 Identification of interconnections and cross-connections

- (a) All affected municipalities shall identify all interconnections and cross-connections by investigating, in the order established in the priority list approved in N.J.A.C. 7:22A-4.4, the stormwater sewer systems within the municipality.
- (b) Prior to the submission of the final map in accordance with N.J.A.C. 7:22A-4.3, all affected municipalities shall investigate at least one-third of the stormwater outfalls in accordance with (c) and (d) below. The affected municipality shall investigate the remaining stormwater outfalls by June 17, 1994 or within three years of the date of the execution of the final mapping grant agreement, whichever comes later.
- (c) All affected municipalities shall investigate for the presence of interconnections and cross-connections by either:
- 1. Taking one grab sample of the discharge from the stormwater outfall and analyze that sample for the presence of bacterial contamination in accordance with N.J.A.C. 7:22A-4.6. If the sampling indicates excessive levels as specified in N.J.A.C. 7:22A-4.7, the affected municipality shall identify the source of the contamination in accordance with (d) below; or
- 2. Taking one grab sample of the discharge from the stormwater outfall and performing a viral indicator test on that sample in accordance with N.J.A.C. 7:22A-4.6. If the test indicates that the stormwater is contaminated by a human source, the affected municipality shall identify the source of the human contamination in accordance with (d) below. If the test indicates that the stormwater is not contaminated by a human source, the affected municipality shall comply with the requirements in (e)2 below; or
- 3. Not performing any initial sampling or testing at the stormwater outfall, thereby foregoing the need to wait for analytical results, and assume that the discharge from the stormwater outfall would either indicate excessive levels of bacterial contamination or indicate contamination by a human source. Using this option, the affected municipality may forgo the sampling or testing of each stormwater outfall required in (c)1 or 2 above and proceed to identify any sources of contamination in accordance with (d) below. In no case shall any affected municipality forgo the sampling or testing on the assumption that the discharge from the stormwater outfall is not contaminated.
- (d) The affected municipality shall, unless otherwise directed by the Department, isolate and identify the source of the contamination as follows:
- 1. Taking grab samples throughout the stormwater sewer system and doing one of the following:

- i. Analyzing the samples for the presence of bacterial contamination in accordance with N.J.A.C. 7:22A-4.6. Where sampling has been performed in accordance with (c)1 above, the affected municipality shall continue taking grab samples at access points, such as manholes or catch-basins, upstream in the stormwater collection system until excessive levels of bacteria are no longer evident. Where outfall sampling has not been performed in accordance with (c)1 above, the affected municipality shall begin taking grab samples at the stormwater outfall; or
- ii. Performing the viral indicator test in accordance with N.J.A.C. 7:22A-4.6. Where testing has been performed in accordance with (c)2 above, the affected municipality shall continue taking grab samples at access points, such as manholes or catch-basins, upstream in the stormwater collection system until the test no longer indicates human contamination. Where outfall testing has not been performed in accordance with (c)2 above, the affected municipality shall begin taking grab samples at the stormwater outfall; and
- 2. Using smoke testing, dye testing, video investigations, or any other analysis approved by the Department. If the tests indicate that the contamination results from an interconnection or cross-connection, the affected municipality shall comply with the requirements in (e)1 below. If the tests indicate that the contamination does not result from an interconnection or cross-connection, the affected municipality shall comply with the requirements in (e)2 below.
- (e) Once the affected municipality identifies the source:
- 1. All affected municipalities shall eliminate, or cause to be eliminated, any interconnection or unpermitted cross-connection identified within the boundaries of the municipality. Any affected municipality or public entity controlling or operating the stormwater sewer system may require the elimination of any interconnection or unpermitted cross-connection with the use of the penalty procedures in N.J.A.C. 7:22A-1.7.
- 2. Contamination which does not originate from an interconnection or cross-connection (that is, nonpoint source pollution) shall be identified on a list containing the following:
- i. The isolated source area of the contamination using a narrative reference to the final map; and
- ii. A listing of the possible nonpoint sources of contamination based on observations and conclusions derived from investigating the isolated source area.

7:22A-4.6 Sampling and testing requirements

(a) Prior to taking any grab samples as required by N.J.A.C. 7:22A-4.5 and 4.8, all affected municipalities shall submit a quality assurance program plan and have the plan

approved by the Department. Any method used for sampling, testing or investigation shall be a method approved by the Department.

- (b) All affected municipalities shall have all grab samples analyzed by a State certified laboratory which utilizes analytical methods approved by the Department pursuant to N.J.A.C. 7:18. For a laboratory performing the viral indicator test, the laboratory shall be certified in the microbiological category.
- (c) All affected municipalities shall include the following information along with the data collected in accordance with N.J.A.C. 7:22A-4.5 and 4.8:
- 1. The number assigned to the outfall where the sample was collected;
- 2. The location of the outfall where the sample was collected;
- 3. The location of the grab samples taken throughout the stormwater system in accordance with N.J.A.C. 7:22A-4.5(d)1;
- 4. The date and time the sample was collected;
- 5. An identification of the sample as either a "wet weather" or "dry weather" sample. If a "dry weather" sample, include a description of the discharge, such as color, turbidity, odor, etc.; and
- 6. The method used to analyze the sample.
- (d) All affected municipalities shall perform sampling or testing in accordance with N.J.A.C. 7:22A-4.5 and 4.8 as follows:
- 1. When performing sampling in accordance with N.J.A.C. 7:22A-4.5(c)1 or periodic sampling in accordance with N.J.A.C. 7:22A-4.8, a grab sample shall be sampled for the presence of the following bacterial indicators:
- i. Total coliform;
- ii. Fecal coliform; and
- iii. Enterococci.
- 2. When performing sampling in accordance with N.J.A.C. 7:22A-4.5(d)1i, a grab sample shall be sampled for the presence of the following bacterial indicators:
- i. Fecal coliform; and
- ii. Enterococci.

- 3. When testing in accordance with N.J.A.C. 7:22A-4.5(c)2 and (d)1ii, a grab sample shall be tested using the viral indicator test, if the test is approved by the Department.
- (e) When sampling or testing a stormwater outfall which is submerged or partially submerged, grab samples shall be collected at the manhole closest to the outfall which is not influenced by the receiving water.
- (f) Wet weather grab samples shall be collected from the stormwater discharge resulting from a storm event that is greater than .1 inch and at least 72 hours from the previously measurable (greater than .1 inch) storm event. Grab samples shall be collected within the first 30 minutes of the storm event. Dry weather grab samples are required to be taken when an outfall is discharging stormwater 72 hours after the previously measurable (greater than .1 inch) storm event.

7:22A-4.7 Excessive bacterial levels for sample analysis

- (a) Based on the surface water classification of the receiving water body as set forth in the Surface Water Quality Standards, N.J.A.C. 7:9B, bacteria levels shall be considered excessive for the purposes of this subchapter where the grab sample analysis indicates:
- 1. Fecal coliform levels greater than:
- i. 50 counts/100 ml for SC waters;
- ii. 200 counts/100 ml for FW2 and SE1;
- iii. 770 counts/100 ml for SE2; and
- iv. 1500 counts/100 ml for SE3;
- 2. Enterococci levels greater than:
- i. 33 counts/100 ml for FW2; and
- ii. 35 counts/100 ml for SE1 and SC; or
- 3. Bacterial indicator levels greater than the standard for approved shellfish waters as established by the National Shellfish Sanitation Program as set forth in its current manual of operations for all shellfish waters in N.J.A.C. 7:12.

7:22A-4.8 Periodic monitoring

(a) All affected municipalities shall initiate the periodic monitoring of their stormwater outfall lines in the first month following the approval of the final map. The affected municipality shall take a grab sample at all stormwater outfalls for any stormwater sewer system discharging into salt water in accordance with N.J.A.C. 7:22A-4.6(d)1. The

sampling frequency for the periodic monitoring is as follows:

- 1. For priority outfalls, sampling shall be conducted twice each year;
- 2. For those outfalls other than those priority outfalls, sampling shall be conducted once each year.
- (b) All affected municipalities shall submit a priority list, for the Department's approval, which identifies the order in which the stormwater sewer systems discharging to salt waters will be monitored on a periodic basis. This priority list shall be based on the priorities established in N.J.A.C. 7:22A-4.4.
- (c) Periodic monitoring shall be performed in accordance with the sampling procedures outlined in N.J.A.C. 7:22A-4.6. Investigative sampling performed in accordance with N.J.A.C. 7:22A-4.5(c)1 or (d)1i can be used to satisfy the periodic monitoring requirements of (a) above.
- (d) Periodic monitoring shall also include monitoring of any dry weather discharges identified from the stormwater outfalls. Outfalls having dry weather discharges shall be monitored during both dry and wet weather events.
- (e) In the event that there is no sufficient rainfall to produce flow from any given outfall during the scheduled periodic monitoring, the affected municipality shall perform the monitoring during the next storm event to produce a sufficient flow as established in N.J.A.C. 7:22A-4.6(f).
- (f) The affected municipality shall submit to the Department all periodic monitoring data and specify any excessive levels of bacteria, as set forth in 7:22A-4.7, found during periodic monitoring as required in N.J.A.C. 7:22A-4.2(g).
- (g) After the completion of the investigation of all the stormwater outfalls in the municipality, as required in N.J.A.C. 7:22A-4.5(b), the affected municipality shall identify the source of the contamination in accordance with N.J.A.C. 7:22A-4.5 whenever excessive bacterial levels are found during the quarterly monitoring events.
- (h) The affected municipality, after locating the source of the contamination, shall identify the person responsible for, and promptly eliminate or seek the elimination of the contamination in accordance with N.J.A.C. 7:22A-4.5(e).

7:22A-4.9 Applicant eligibility for final mapping grants

- (a) Subject to (b) below, any affected municipality, listed in Appendix A, may apply for a grant to prepare a final map.
- (b) Any municipality may challenge the Department's inclusion or omission from Appendix A by submitting documentary evidence which proves to the Department's

satisfaction that the municipality's stormwater sewer system either does or does not directly discharge into the salt waters of Atlantic, Cape May, Monmouth, or Ocean counties. A municipality may contest the Department's decision on the petition in accordance with N.J.A.C. 7:22A-1.16(b).

7:22A-4.10 Funding

(a) Grant amounts from the Department for final mapping are based on the applicant's estimated project costs. The minimum grant amount available to an affected municipality for final mapping will be \$20,000 and the maximum will be \$300,000. The minimum grant amount available shall be adjusted based upon certain development factors in the following formula:

F = \$5,535,000.00 - \$20,000 (total applicant municipalities)

- (b) The resulting amount developed pursuant to (a) above shall be rounded to the nearest 50 dollar amount and shall not exceed \$300,000. If necessary, the resulting amount shall be adjusted based on the total amount of grant funding available.
- (c) The Department may provide only up to 90 percent of the allowable project costs and the applicant shall provide at least 10 percent of the allowable project costs.

7:22A-4.11 Pre-application meeting

Prior to submission of a grant application, applicants may request a pre-application conference to discuss application procedures. This conference is not part of the application procedures and verbal statements made by the Department during the conference shall not bind the Department.

7:22A-4.12 Application procedures

- (a) Applications for final mapping grant moneys shall be submitted to the Department on or before August 16, 1991 or as otherwise extended by the Department.
- (b) Each applicant shall include full and complete documentation in the application, including, but not limited to:
- 1. A brief description of how the grant shall be used and the method of accomplishing the requirements of this subchapter;
- 2. A description of how the applicant plans to pay for its share of the project costs, including those costs in excess of the grant award necessary to fully complete the project;
- 3. A description of the steps the applicant plans to take before receiving grant moneys that shall guarantee that at the time of signing of the grant agreement that the applicant shall be irrevocably committed to pay its share of the project costs;
- 4. An estimated budget of the applicant's project costs;
- 5. If the applicant did not participate in the preliminary mapping and inventory phase of the Act, the affected municipality's developed acres, undeveloped acres and total land area in acres. Each category of acreage shall specify the land use and the density of that land use; and
- 6. Any other supplementary materials that the Department may require.
- (c) Each applicant shall submit a certified true sealed copy of a resolution adopted by the governing body of the affected municipality. The resolution shall:
- 1. Authorize the filing of an application for grant moneys for final mapping;
- 2. Specify the individual, by title, authorized to sign the application on behalf of the applicant;
- 3. Commit the applicant to providing at least 10 percent of the project costs and certify that the applicant has available the 10 percent match or more, if necessary; and
- 4. Commit the applicant to comply with the Department's standards for the final mapping as specified in N.J.A.C. 7:22A-4.

7:22A-4.13 Application evaluation

- (a) Each application shall be subject to:
- 1. Preliminary administrative review to determine the completeness of the application. Incomplete applications shall be returned to the applicant with a letter detailing the deficiencies. Incomplete applications which are not amended to conform to the

comments of the Department and resubmitted within the time frame established by the Department may be denied;

- 2. Budget evaluation to ensure that the proposed project costs are reasonable, applicable and allowable; and
- 3. Final administrative evaluation.
- (b) During the evaluation process, the recipient shall, upon the request of the Department, submit supplemental documents or information necessary for the Department to complete its full review and decision on the application. The Department may suspend its evaluation until the additional information or documents have been received. Failure to submit the additional information or documents may be grounds for denial of the grant application.

7:22A-4.14 Department approval or disapproval

- (a) After a final evaluation of a completed application, the Department shall take one of the following actions:
- 1. Approve the application for a grant and initiate the preparation of a grant agreement; or
- 2. Disapprove the application.
- (b) The applicant shall be notified in writing of the Department's decision to disapprove an application.
- (c) An applicant may amend and resubmit an application disapproved by the Department within the time frame established by the Department.

7:22A-4.15 Allowable costs

- (a) Project costs shall be allowed to the extent permitted by this subchapter and the grant agreement. The periodic monitoring requirements under N.J.A.C. 7:22A-4.8 will not be an allowable cost under the final mapping grant award. Allowable project costs may include:
- 1. Work performed by the recipient's personnel, or any party to a subagreement after the effective date of this subchapter, including salaries and fringe benefits for the recipient's personnel or persons hired to complete the project; and
- 2. Equipment and supplies used solely to complete the project which shall include, but not be limited to, video equipment, surveying equipment, vehicle operating costs, and protective clothing.
- (b) Notwithstanding (a) above, the Department shall not allow costs for work that the

Department determines is not in compliance with or relevant to this chapter or the specifications or requirements of subagreements or grant agreements. Costs for work not in compliance with or relevant to this chapter, the subagreements, or grant agreements are unallowable.